TABLE 10-continued

Estimated mean change from baseline in diastolic blood pressure by randomized starting dose, patients who were hyperkalemic at screening Stratum 2

	Stratum 2 - Local serum K^+ >5.5-<6.0 mEq/L			
Change in DBP from baseline (mmHg)	20 g/d N = 24	30 g/d N = 24	40 g/d N = 25	Overall N = 73
Week 4, n	22	21	19	62
Least squares mean ± SE	−8.0 ± 2.4	−6.9 ± 2.5	−2.6 ± 2.6	−5.8 ± 1.4
95% confidence interval	−12.7, −3.2	−11.7, −2.0	−7.6, 2.4	−8.6, −3.0
Week 5, n	22	21	18	61
Least squares mean ± SE	−8.6 ± 1.9	−7.3 ± 2.0	−5.1 ± 2.1	−7.0 ± 1.1
95% confidence interval	−12.4, −4.9	−11.2, −3.5	−9.1, −1.0	−9.3, −4.8
Week 6, n	22	21	17	60
Least squares mean ± SE	−7.6 ± 2.1	−10.0 ± 2.2	−4.8 ± 2.3	−7.5 ± 1.3
95% confidence interval	−11.8, −3.4	−14.2, −5.8	−9.3, −0.2	−10.0, −5.0
Week 7, n	22	21	17	60
Least squares mean ± SE	−7.5 ± 2.0	−9.4 ± 2.1	−3.0 ± 2.2	−6.6 ± 1.2
95% confidence interval	−11.5, −3.5	−13.5, −5.4	−7.4, 1.4	−9.0, −4.3
Week 8, n	22	22	19	63
Least squares mean ± SE	−4.8 ± 2.2	−8.6 ± 2.2	−2.1 ± 2.3	−5.2 ± 1.3
95% confidence interval	−9.1, −0.4	−12.9, −4.3	−6.7, 2.5	−7.7, −2.6

Example 5: Study of Relationship Between Serum Potassium and Serum Aldosterone Levels

Male, unilaterally nephrectomized, spontaneously hypertensive rats (SHR) (N=32) were used in the experimental groups in this study. Non-manipulated SHR (N=6) were used as a control group. Animals were acclimated on a low Ca^{2+} and Mg^{2+} diet (TD04498) for two weeks. The diet for the experimental groups was then switched to one supplemented with spironolactone (0.4% w/w, TD120436) and the drinking water was supplemented with amiloride (0.05 mM) and quinapril (30 mg/L) for the duration of the study.

Animals in the control group remained on the TD04498 diet and unsupplemented water for the duration of the study.

A baseline blood draw was performed on all animals 16 days later. The animals were randomized into 4 groups based on baseline serum potassium levels and placed on a potassium binder treatment regimen as described in the table below:

Group	Treatment	N
1	TD120436 (untreated)	8
2	TD120436 + 2% potassium binder	8
3	TD120436 + 4% potassium binder	8
4	TD120436 + 6% potassium binder	8
5	Control	6

Blood, feces, and urine were collected 9 and 15 days after the treatment regimen was started. Proximal and distal gastrointestinal segments were harvested at the end of the study. Serum, fecal, and urine potassium levels and serum aldosterone levels were determined at respective time points.

The serum potassium levels (mmol/L) for the control, untreated, and experimental groups at baseline, day 9, and day 15 were analyzed. The average serum potassium reduction levels compared to the untreated group were −9.1% (2% potassium binder), −18.2% (4% potassium binder), and −20.3% (6% potassium binder) on day 9 and −6.9% (2% potassium binder), −13.2% (4% potassium binder), and −17.4% (6% potassium binder) on day 15. A significant reduction in serum potassium levels in all groups treated with potassium binder at day 9 and at the two higher doses on day 15 was observed as compared to the untreated group. The analysis was performed using a 2-way ANOVA plus Bonferroni post hoc test (**P<0.01; ***P<0.001 vs. untreated).

The serum aldosterone levels (pg/mL) for the control, untreated, and experimental groups at baseline, day 9, and day 15 were also analyzed. The average serum aldosterone reduction levels compared to the untreated group were −22.7% (2% potassium binder), −53.0% (4% potassium binder), and −57.6% (6% potassium binder) on day 9 and −16.6% (2% potassium binder), −37.9% (4% potassium binder), and −50.3 (6% potassium binder) % on day 15. A significant reduction in serum aldosterone levels was observed in all groups treated with potassium binder at day 9 and at the two higher doses on day 15 as compared to the untreated group. The analysis was performed using a 2-way ANOVA plus Bonferroni post-hoc test (*P<0.05; **P<0.01; ***P<0.001 vs. untreated).

There was no difference in the urine potassium excretion levels between all treatment groups.

The study showed that a reduction in serum aldosterone was observed with a reduction in serum potassium.

When introducing elements of the present invention or the preferred embodiments(s) thereof, the articles "a", "an", "the" and "said" are intended to mean that there are one or more of the elements. The terms "comprising", "including" and "having" are intended to be inclusive and mean that there may be additional elements other than the listed elements.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above methods without departing from the scope of the invention, it is intended that all matter contained in the above description and shown in the accompanying figure[s] shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A method of treating hyperkalemia in a chronic kidney disease patient in need thereof optionally being treated with an effective amount of a renin-angiotensin-aldosterone system (RAAS) agent, the method comprising:

administering an effective amount of a potassium-binding agent to the patient;